What is Claimed is:

1. An automatic frequency control device in an OFDM (Orthogonal Frequency Divisional Multiplexing) system, comprising:

a correlation unit calculating a correlation value between a guard interval and data of an incoming signal;

an averaging unit averaging correlation values across a plurality of symbols and a plurality of frames;

a peak position detecting unit detecting a peak position of the averaged correlation value; and

a control unit controlling an oscillator using a prescribed step, based on the detected peak position.

2. The automatic frequency control device according to claim 1, wherein if a peak value of the correlation value is less than a prescribed value, the oscillator is not controlled.

3. The automatic frequency control device according to claim 1, wherein if a phase fluctuation amount obtained from the peak position of the correlation value is greater than a prescribed value, a control value of the oscillator is not updated.

4. The automatic frequency control device according to claim 1, wherein if the peak position of the correlation value is judged to be abnormal, based on statistical information of peak positions previously obtained, the oscillator is not controlled.

5. The automatic frequency control device according to claim 1, wherein if the number of detected peak positions with error greater than expected exceeds a prescribed number, an alarm is sent to a user or a higher layer to prompt control of the automatic frequency control device.

6. The automatic frequency control device according to claim 1, wherein if the number of detected peak positions with error greater than expected exceeds a prescribed number, the number of frames to be averaged and the width of the control step of a correlation value are modified.

7. The automatic frequency control device according to claim 1, wherein the control step based on the peak value of a correlation value smoothly changes against change of the peak value.

8. The automatic frequency control device according to claim 1, wherein the control step based on the phase fluctuation amount obtained from the peak position of a correlation value smoothly changes against change of phase fluctuation amount.

9. The automatic frequency control device according to claim 1, wherein the number of frames to be averaged at the time of initial pulling and that at the time of base-station follow-up are different.

10. The automatic frequency control device according to claim 1, wherein the control step at the time of initial pulling and that at the time of base-station follow-up are different.

11. The automatic frequency control device according to claim 1, which is used in an OFDM-CDMA system.

12. An automatic frequency control method in an OFDM (Orthogonal Frequency Divisional Multiplexing) system, comprising:

calculating a correlation value between a guard interval and data of an incoming signal;

averaging correlation values across a plurality of symbols and a plurality of frames;

detecting a peak position of the averaged correlation value; and

controlling an oscillator using a prescribed step, based on the detected peak position.

13. The automatic frequency control method according to claim 12, wherein if a peak value of the correlation value is less than a prescribed value, the oscillator is not controlled.

14. The automatic frequency control method according to claim 12, wherein if a phase fluctuation amount obtained from the peak position of the correlation value is greater than a prescribed value, a control value of the oscillator is not updated.

15. The automatic frequency control method according to claim 12, wherein if the peak position of the correlation value is judged to be abnormal based on statistical information of peak positions previously obtained, the oscillator is not controlled.

16. The automatic frequency control method according

to claim 12, wherein if the number of detected peak positions with error greater than expected exceeds a prescribed number, an alarm is sent to a user or a higher layer to prompt control of the automatic frequency control device.

17. The automatic frequency control method according to claim 12, wherein if the number of detected peak positions with error greater than expected exceeds a prescribed number, the number of frames to be averaged and the width of the control step of a correlation value are modified.

18. The automatic frequency control device according to claim 12, wherein the control step based on the peak value of a correlation value smoothly changes against change of the peak value.

19. The automatic frequency control device according to claim 12, wherein the control step based on the phase fluctuation amount obtained from the peak position of a correlation value smoothly changes against change of phase fluctuation amount.

20. The automatic frequency control device according

to claim 12, wherein the number of frames to be averaged at the time of initial pulling and that at the time of base-station follow-up are different.

21. The automatic frequency control method according to claim 12, wherein the control step at the time of initial pulling and that at the time of base-station follow-up are different.

22. The automatic frequency control method according to claim 12, which is used in an OFDM-CDMA system.